



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|------------------------|------------------|
| 09/738,464 | 12/13/2000 | Thorsten Laux | P-4589 | 9684 |
| 24209 7590 03/20/2007 GUNNISON MCKAY & HODGSON, LLP 1900 GARDEN ROAD SUITE 220 MONTEREY, CA 93940 | | | EXAMINER ZHEN, LI B | |
| | | | ART UNIT 2194 | PAPER NUMBER |
| SHORTENED STATUTORY PERIOD OF RESPONSE | | | MAIL DATE | |
| 3 MONTHS | | | 03/20/2007 | |
| | | | DELIVERY MODE PAPER | |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/738,464

Applicant(s)

LAUX, THORSTEN

Examiner

Li B. Zhen

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-8,10-15 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-8,10-15 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/18/2007
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-3, 5-8, 10-15 and 17 are pending in the current application.

Response to Amendment

2. Applicant's amendment to claims 1, 6, 11 and 13 in the response filed 12/21/2006 obviates the 35 U.S.C. §101 rejection to claims 1 – 17 presented in the Non-Final Office dated 08/22/2006. Thus the 35 U.S.C. §101 rejection to claims 1 – 17 is withdrawn.

Response to Arguments

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-3, 5-8, 10-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,903,890 to Shoji et al. [hereinafter Shoji, cited in the previous office action] in view of U.S. Patent No. 7,113,939 to Chou et al. [hereinafter Chou].**

6. As to claim 11, Shoji teaches the invention substantially as claimed including a system comprising:

a plurality of databases [databases 704 – 706, Fig. 1; col. 4, lines 18 – 35];

a driver for each database in the plurality of databases [drivers 712 – 714, Fig. 1; col. 4, lines 47 – 64] thereby forming a plurality of drivers wherein each driver has a substantially identical driver application programming interface [database system of the present invention comprises a plurality of database drivers which are hierarchically equal. This structure is compatible with the digital cell technology. In this embodiment, the database and interface drivers could be implemented as cells; col. 2, lines 43 – 56]; and

a merging driver coupled to each driver in the plurality of drivers through the driver application programming interface [interface driver 720, Fig. 1; col. 5, lines 39 – 60], wherein the merging driver distributes access operations to each driver in said plurality of drivers [drivers 712 – 714, Fig. 1; col. 4, lines 47 – 64] so that the access operations are directed to each of said plurality of databases [user can then click on one of the logic relationships shown in a window 778 to select a search for the results of all the databases; col. 5, lines 45 – 60]. Although Shoji teaches the invention substantially as claimed, Shoji does not specifically teach distributing a single query to each driver so that single query is directed to each of the plurality of databases to search for stored data related to the single query and the merging driver generates an ordered result comprising retrieving results corresponding to the result offers from said plurality of databases in an order to generate the ordered result.

However, Chou teaches a plurality of databases [federated datastore 100 is a virtual datastore which combines several heterogeneous datastores 102 into a consistent and unified conceptual view; col. 5, lines 36 – 49], a merging driver [Java Grand Portal is a set of Java classes which provides access and manipulation of local or remote data stored in Digital Library storage facilities; col. 5, lines 2 – 10], distributing a single query [user can pass the federated query string to the execute or evaluate method in the federated datastore to process the query directly; col. 19, lines 17 – 31] to each of the plurality of databases [DES datastore 620 enables searching a Lotus Notes database 622, searching the Web 624, searching a file system 626, or searching a relational database 628; col. 24, lines 25 – 47] to search for stored data [Searching involving heterogeneous datastores; col. 5, lines 9 – 28] related to the single query in each of the plurality of databases [Each native query is submitted; col. 20, lines 17 – 25], and the merging driver generates an ordered result [result can be grouped by each back-end or un-grouped; col. 41, lines 30 – 47 and col. 23, line 54 – col. 24, line 2] comprising retrieving results corresponding to the result offers [DES datastore retrieves data from one or more data sources (e.g., the Web or a file system); col. 41, lines 30 – 47] from said plurality of databases in an order to generate the ordered result [The result is a union of results from DES back-end datastores; col. 41, lines 30 – 47].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Shoji to incorporate the features of a single query to each driver so that single query is directed to each of the plurality of databases to search for stored data related to the single query and the merging driver

Art Unit: 2194

generates an ordered result comprising retrieving results corresponding to the result offers from said plurality of databases in an order to generate the ordered result because this unifies and enriches the client/middle server environments for consolidated and Web-enabled access across combined federation targets of distributed and heterogeneous datastores [col. 41, lines 45 - 58 of Chou].

7. As to claim 1, Shoji teaches the invention substantially as claimed including a method for enabling access of a plurality of databases [databases 704 – 706, Fig. 1; col. 4, lines 18 – 35] by a single access operation [col. 5, lines 45 – 60] wherein each database in the plurality of databases requires a separate driver to access the database so that there is a plurality of separate drivers [drivers 712 – 714, Fig. 1; col. 4, lines 47 – 64], the method comprising:

using an API for each driver in the plurality of separate drivers [drivers 712 – 714, Fig. 1; col. 4, lines 47 – 64], wherein the API is substantially identical for each of the drivers in the plurality of separate drivers [col. 2, lines 43 – 56]; and

receiving the single access operation by a merging driver [interface driver 720, Fig. 1; col. 5, lines 39 – 60] wherein in response to the single access operation [user can then click on one of the logic relationships shown in a window 778 to select a search for the results of all the databases; col. 5, lines 45 – 60], the merging driver accesses each driver in the plurality of separate drivers through the API [drivers 712 – 714, Fig. 1; col. 4, lines 47 – 64]; and

accessing an associated database in said plurality of databases [col. 4, lines 18 – 35] by said each driver [col. 4, lines 47 – 64] in response to said merging driver

Art Unit: 2194

[interface driver 720, Fig. 1; col. 5, lines 44 – 60] access through said API [col. 5, lines 45 – 60]. Although Shoji teaches the invention substantially, Shoji does not specifically disclose a single access operation enabled access of the plurality of databases to search for stored data related to the single access operation and obtaining an ordered result in response to the single access operation by retrieving results corresponding to result offers from the plurality of databases in an order to obtain the ordered result.

However, Chou teaches a plurality of databases [federated datastore 100 is a virtual datastore which combines several heterogeneous datastores 102 into a consistent and unified conceptual view; col. 5, lines 36 – 49], a merging driver [Java Grand Portal is a set of Java classes which provides access and manipulation of local or remote data stored in Digital Library storage facilities; col. 5, lines 2 – 10], an application programming interface for each database [all of these datastores 100 and 102 have the same interface; col. 6, lines 9 – 18], distributing a single query [user can pass the federated query string to the execute or evaluate method in the federated datastore to process the query directly; col. 19, lines 17 – 31] to each of the plurality of databases [DES datastore 620 enables searching a Lotus Notes database 622, searching the Web 624, searching a file system 626, or searching a relational database 628; col. 24, lines 25 – 47] to search for stored data [Searching involving heterogeneous datastores; col. 5, lines 9 – 28] related to the single query in each of the plurality of databases [Each native query is submitted; col. 20, lines 17 – 25], and obtaining by the merging driver an ordered result in response to the single access operation [The result is a union of results from DES back-end datastores; col. 41, lines 30 – 47 and col. 23,

line 54 – col. 24, line 2] wherein the obtaining further comprises retrieving results, by the merging driver [DES datastore retrieves data from one or more data sources (e.g., the Web or a file system); col. 41, lines 30 – 47], corresponding to result offers from the plurality of databases in an order to obtain the ordered result [result can be grouped by each back-end or un-grouped; col. 41, lines 30 – 47].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Shoji to incorporate the features of a single query to each driver so that single query is directed to each of the plurality of databases to search for stored data related to the single query and the merging driver generates an ordered result comprising retrieving results corresponding to the result offers from said plurality of databases in an order to generate the ordered result because this unifies and enriches the client/middle server environments for consolidated and Web-enabled access across combined federation targets of distributed and heterogeneous datastores [col. 41, lines 45 - 58 of Chou].

8. As to claim 6, this is a product claim that correspond to method claim 1; note the rejection to claim 1 above, which also meet this product claim.

9. As to claim 13, this is a system claim that correspond to method claim 1; note the rejection to claim 1 above, which also meet this system claim. As to the additional limitations, Shoji teaches a processor [CPU 604, Fig. 8; col. 15, lines 20 – 35] and a memory coupled to the processor [system memory 606, Fig. 8; col. 15, lines 20 – 35].

Art Unit: 2194

10. As to claim 2, Shoji teaches receiving from a user a selection of each database to be included in the plurality of databases [an application 724 to specify the databases to be searched...displaying information relating to a selected database; col. 5, lines 38 – 62].

11. As to claim 3, Shoji as modified teaches a database in the plurality of databases is a merging data source [Database system 700 contains a plurality of single-association databases, such as databases 704-706, col. 4, lines 18 – 35 of Shoji and see also col. 23, lines 37 – 46 of Chou].

12. As to claim 5, Shoji teaches accessing the merging driver through a user interface API [graphic display 740, Fig. 2A; col. 4, line 64 – col. 5, line 21 of Shoji].

13. As to claims 7, 8 and 10, these are product claims that correspond to method claims 2, 3 and 5; note the rejections to claims 2, 3 and 5 above, which also meet these product claims.

14. As to claim 12, see the rejection to claim 3 above.

15. As to claims 14, 15 and 17, these are system claims that correspond to method claims 2, 3 and 5; note the rejections to claims 2, 3 and 5 above, which also meet these system claims.

CONTACT INFORMATION


16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LBZ

Li B. Zhen
Examiner
Art Unit 2194



3/16/2007